6AC7 ★

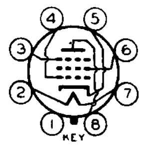
6AC7/1852

TELEVISION AMPLIFIER PENTODE

SINGLE-ENDED METAL TYPE

Heater★	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.45	amp.
Direct Interelectrode Capacitances:°		
Grid to Plate	0.015 max.	μμf
Input	11	μμf
Output	5	μμf
Maximum Overall Length		2-5/8"
Maximum Seated Height		2-1/16"
Maximum Diameter		1-5/16"
Bulb		Metal Shell, MT-8
Base		Small Wafer Octal 8-Pin

Pin 1 - Shell
Pin 2 - Heater
Pin 3 - Suppressor
Pin 4 - Grid
Pin 5 - Cathode
Pin 6 - Screen
Pin 7 - Heater
Pin 8 - Plate



Mounting Position — BOTTOM VIEW (8N) — Any

AMPLIFIER

Plate Voltage	300 max.	volts
Screen Voltage	150 max.	volts
Screen-Supply Voltage	300 max.	volts
Plate Dissipation	3.02 max.	watts ←
Screen Dissipation	0.38 max.	watt

Typical Operation and Characteristics - Class A_1 Amplifier:

	*Condition I**	*Condition II***	
Plate Voltage	300	300	volts
Suppressor ◻	0	0	volts
Screen-Supply #	150	300	volts
Screen Series Resistor	-	60000	ohms
Cathode-Bias Resistor ##	160	160	min. ohms
Plate Res.	1.0	1.0	approx. megohm ←
Transcond.	9000	9000	μmhos
Plate Cur.	10	10	ma.
Screen Cur.	2.5	2.5	ma.

° With shell connected to cathode.

Screen-supply voltages in excess of 150 volts require the use of a series-dropping resistor to limit the voltage at the screen to 150 volts when the plate current is at its normal value of 10 milliamperes.

* Condition I with fixed screen supply gives a sharp cut-off characteristic.

** Condition II with series screen resistor gives an extended cut-off characteristic for applications where gain is controlled by variation of grid bias.

Cathode-bias resistor should be adjusted to give a plate current of 10 ma. The d-c resistance in the grid circuit should not exceed 0.25 megohm when the screen voltage is obtained from a fixed source. When a series screen resistor is used with full cathode bias, the d-c resistance in the grid circuit may be as high as 0.5 megohm.

★ The potential difference between heater and cathode should be kept as low as possible.

◻ The suppressor should be connected in r-f and i-f stages directly to ground to minimize feedback.

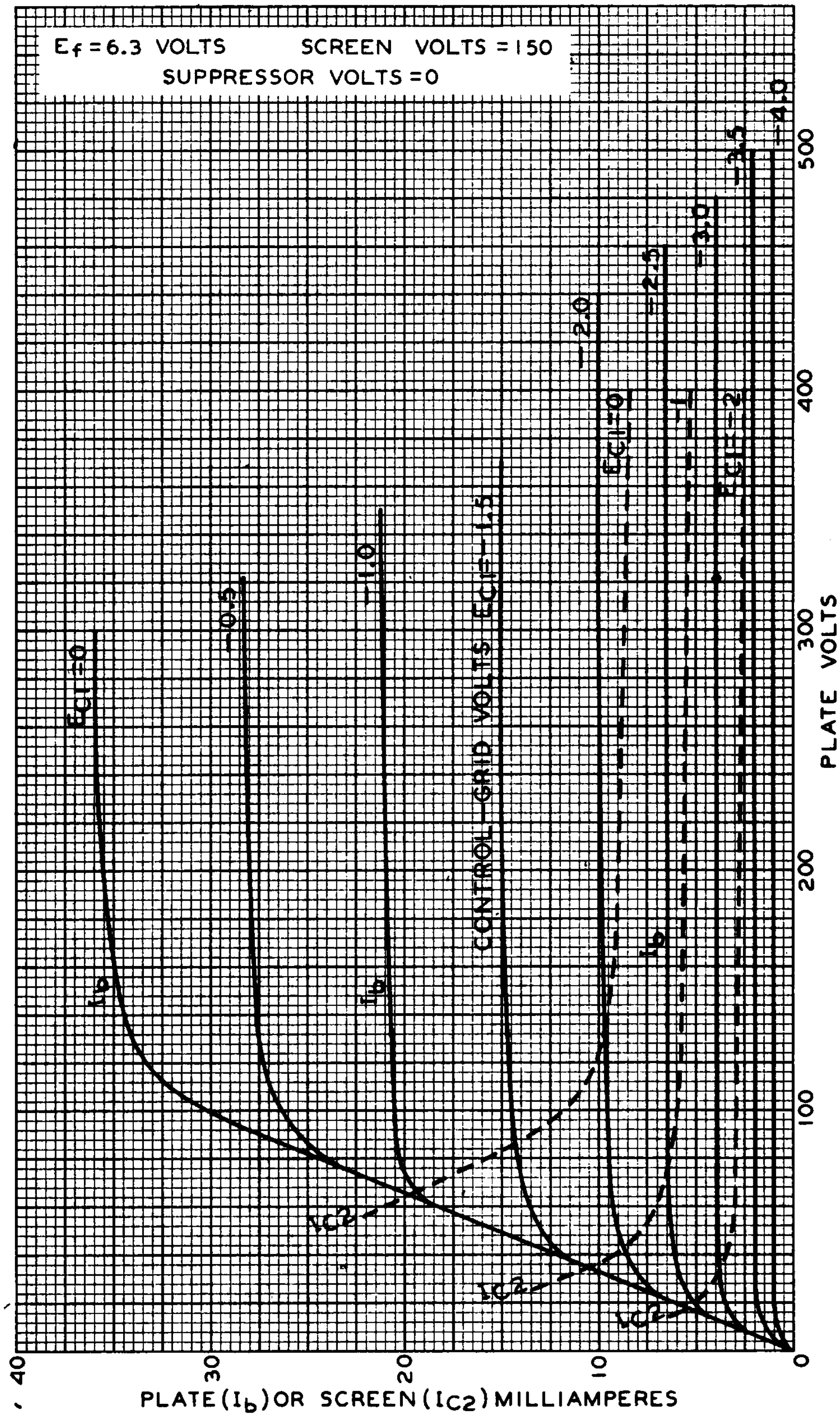
NOTE: It is characteristic of a high gm tube to show appreciable changes of input capacitance and input conductance with plate current. In high-frequency circuits, it will be necessary to take precautions to minimize this effect. The use of the 6AC7 as a high-gain audio amplifier is not recommended unless the heater is operated from a battery source.

←Indicates a change.

6AC7

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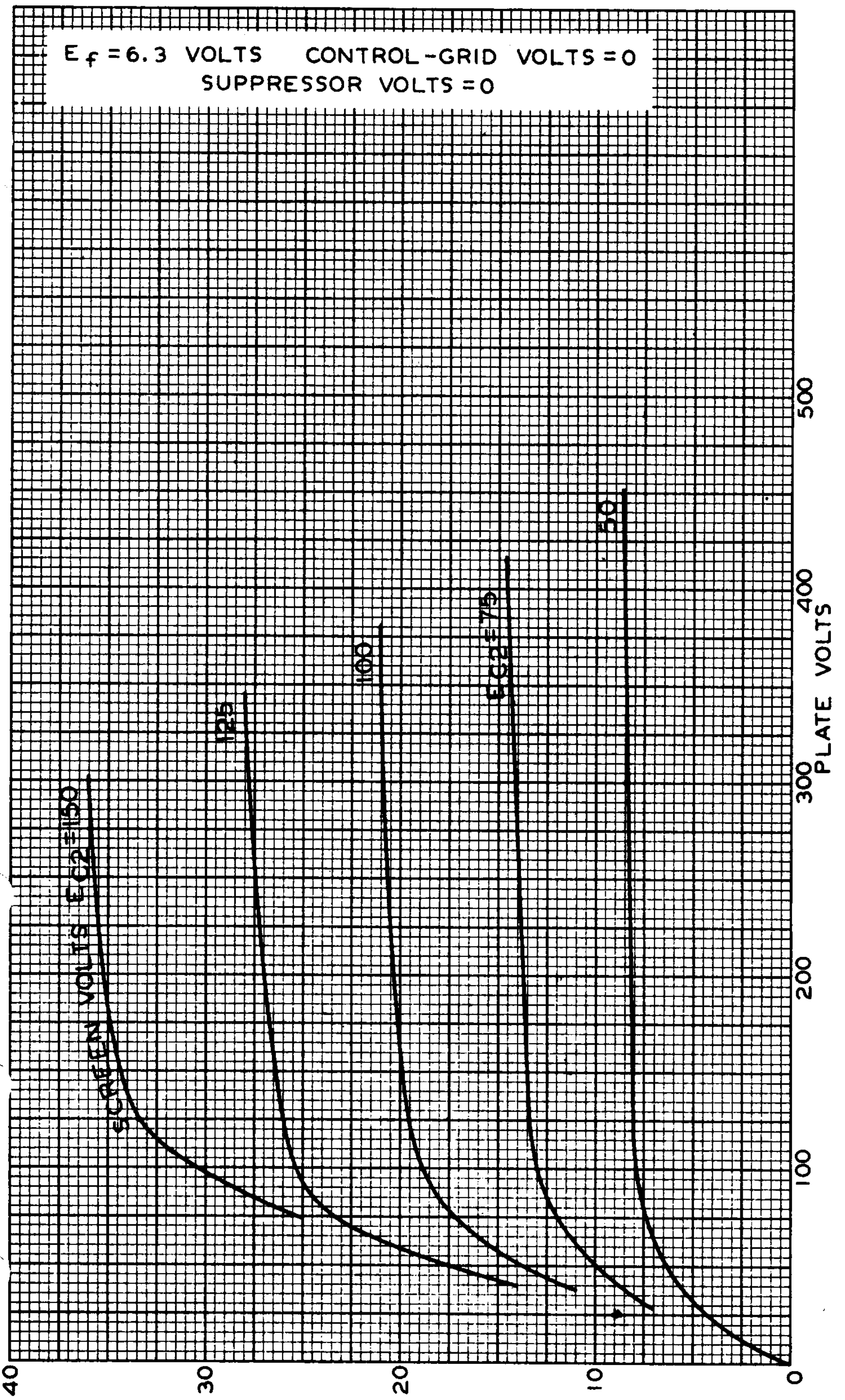
AVERAGE PLATE CHARACTERISTICS



JUNE 17, 1938 RCA RADIOTRON DIVISION RCA MANUFACTURING COMPANY, INC. 92C-6139

6AC7

6AC7
AVERAGE PLATE CHARACTERISTICS



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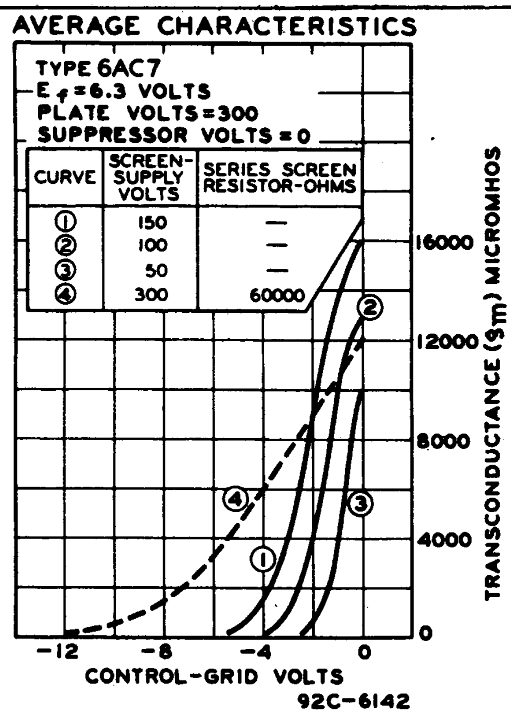
RCA VICTOR DIVISION
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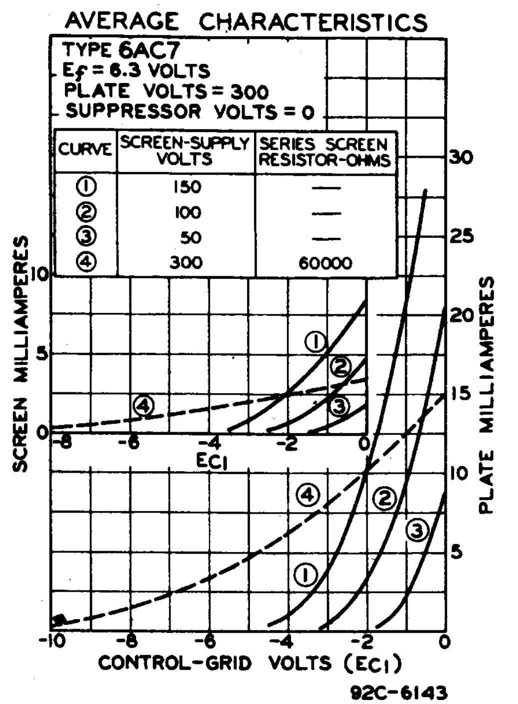
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6AC7

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TELEVISION AMPLIFIER PENTODE





Jan. 1, 1943

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92C-6142
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